Estimation of the Costs of Physical Transmission of the Lowest-Rated 15% of Channels on the Analog and Digital Tiers of CATV Providers

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This paper focuses on estimating the mean cost of physical transmission for the lowest-rated 15% of channels in the basic analog and basic digital tiers of the major CATV providers in the U.S. The intuition underlying the selection of the lowest-rated fifteen percent of channels on each tier is that these channels represent direct substitutables for commercial cable leased access carriage content. It also accords with the statutory reservation of 15% of cable capacity for commercial leased access.[1] Furthermore, the use of the lowest-rated 15% of channels in tier eliminates the artificial inflation arising from properties tied to retransmission consent and "must have" programming like sports. By focusing on the lowest-rated channels, we minimize the impact of licensing fees and come closest to the true cost of physical transmission. Finally, cost of physical transmission should be near constant for all channels. Even if this were not so, there is no evidence that commercial leased access imposes special costs in physical transmission once the cable operator receives the programming.

Basic analog and digital tier channel lists were solicited from five major CATV providers: Cablevision, Comcast, Cox, Mediacom, and Time Warner. Those channels which failed to be rated by Nielsen Media Research because of paucity of audience accounted for 10-13% of each tier. The

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[1] 47 U.S.C. §532(b)(1)(C): A cable operator shall designate channel capacity for commercial use by persons unaffiliated with the operator in accordance with the following requirements:... An operator of any cable system with more than 100 activated channels shall designate 15 percent of all such channels.

remainder of lowest-rated 15% of channels on each tier were identified by Nielsen rating.

Data on number of CATV analog and digital subscriptions, total basic analog service revenue (BASR) and total basic digital service revenue (BDSR),[2] and pro-rated BASR and BDSR data for the lowest-rated 15% of channels on each tier were obtained from various sources and are shown in table 1:

Table 1
Subscriber and Revenue Data, Basic Analog and Digital Cable Services, 2007

Analog Subscribers (millions)	59.48
Digital Subscribers (millions)	39.80
Total Basic Analog Service Revenue ($ millions)	8,819.13
Total Basic Digital Service Revenue ($ millions)	5,929.46
Basic Analog Service Revenue from Lowest-Rated 15% of Tier ($ millions)	170.21
Basic Digital Service Revenue from Lowest-Rated 15% of Tier ($ millions)	118.59

Sources: ABI Research, *CATV Market Forecasts*; Kagan Research, *Economics of Basic Cable Networks* and *Cable Program Investor, March 2007*; Nielsen Media Research.

[2] Both BASR and BADR included both subscriber fee and advertising revenues.

As the data indicate, the lowest-rated 15% of channels on both the basic analog and basic digital tiers represent a miniscule fraction of revenues for the CATV providers, approximately 1.93% of basic analog revenues and 2% of basic digital revenues.

Profit margins for the five selected CATV providers were obtained from Reuters for 2006 and a mean taken, as shown in table 2:

Table 2
CATV Provider Profit Margins, 2006

Provider	Percent
Cablevision	9.13
Comcast	8.99
Cox Communications	10.25
Mediacom Communications	4.05
Time Warner Cable	7.78
Mean	8.04

Source: Reuters.

It was then possible straightforwardly to calculate BASR from lowest-rated 15% of tier and mean CATV profit per subscriber. Calculation of mean licensing fees per subscriber for the lowest-rated 15% of the basic analog tier was done by averaging data on licensing fees for the lowest-rated 15% of channels for each CATV provider and then averaging those means across providers per subscriber. The results are shown in table 3:

Table 3
Per Subscriber Calculations, Basic Analog Service

BASR from Lowest-Rated 15% of Tier Per Subscriber	2.8616

Mean Licensing Fees for BAS Lowest-Rated 15% of Tier Per Subscriber	2.5748
Mean CATV Profit Per Subscriber	0.2301
Mean Estimated Cost of Physical Transmission for BAS Lowest-Rated 15% of Tier per Subscriber	0.0567

Sources: ABI Research, *CATV Market Forecasts*; Kagan Research, *Economics of Basic Cable Networks* and *Cable Program Investor, March 2007.*

It was also possible straightforwardly to calculate BDSR from lowest-rated 15% of tier and mean CATV profit per subscriber. Calculation of mean licensing fees per subscriber for the lowest-rated 15% of the basic digital tier was done by averaging data on licensing fees for the lowest-rated 15% of channels for each CATV provider and then averaging those means across providers per subscriber. The results are shown in table 4:

Table 4
Per Subscriber Calculations, Basic Digital Service

BDSR from Lowest-Rated 15% of Tier Per Subscriber	2.9796
Mean Licensing Fees for BDS Lowest-Rated 15% of Tier Per Subscriber	2.6609
Mean CATV Profit Per Subscriber	0.2396

Mean Estimated Cost of Physical Transmission for BDS Lowest-Rated 15% of Tier per Subscriber	0.0792

Sources: ABI Research, *CATV Market Forecasts*; Kagan Research, *Economics of Basic Cable Networks* and *Cable Program Investor, March 2007.*

Estimation of cost of physical transmission per subscriber for lowest 15% of the basic analog service tier was made by subtracting the mean licensing fees for the BAS lowest-rated 15% of tier per subscriber and the mean CATV profit per subscriber from the BASR from the lowest-rated 15% of tier per subscriber; Estimation of cost of physical transmission per subscriber for basic digital service was made by subtracting the mean licensing fees for the BDS lowest-rated 15% of tier per subscriber and the mean CATV profit per subscriber from the BDSR from the lowest-rated 15% of tier per subscriber. The estimated cost of physical transmission per subscriber for the lowest 15% of the basic analog service tier was $0.0567; the estimated cost of physical transmission per subscriber for the lowest 15% of the basic analog service tier was $0.0792.

It is likely that these figures overestimate actual physical transmission costs, since they do not account for the element of revenues from the lowest-rate 15% of the basic analog and basic digital tiers which are apportionable to capital investment and build-out, but these components of cost are effectively impossible to estimate without proprietary data from the CATV providers.

The cost of physical transmission provides a base from which the FCC can calculate a fixed, national rate for commercial cable leased access. As was shown in a previous submission to the Commission,[3] the technical and studio fees which CATV providers charge in addition to the current implicit fee rate represent a completely arbitrary charge on leasees, effectively a monopoly or duopoly rent in most systems. It is recommended, therefore, that these technical and studio fees be prohibited and replaced by a 25% surcharge on the estimated costs of physical transmission, $0.0142 per subscriber for analog tier and $0.0198 per subscriber for digital tier. This surcharge more than adequately compensates the CATV provider for the technical and studio services rendered. Thus, total fees for analog and digital commercial cable leased access should be fixed at $0.0709 and $0.0990, respectively. In the event that CATV providers can establish by publicly submitted documentation that these rates do not fully recoup real costs of physical transmission, then the Commission should allow adjustment of these rates by system upon Commission review and approval of the submitted empirical evidence.

[3]Gregory Rose, "Commercial Cable Leased Access Fees: Are FCC Regulations Being Followed?" at 18 (filed by NAMAC, *et al.*, MB Docket No. 07-42, October 15, 2007).